NEW MEXICO ENVIRONMENT DEPARTMENT
CLEAN DIESEL PROGRAM

GUIDANCE DOCUMENT

PROGRAM SUMMARY

In 2005, the U.S. Congress passed the *Diesel Emission Reduction Act* (DERA) as an amendment to the *Energy Policy Act* of 2005. DERA was designed to reduce diesel emissions from existing diesel fleets that did not meet the recently adopted federal emission standards. The U.S. Environmental Protection Agency (EPA) is responsible for overseeing and distributing the DERA funds. The New Mexico Environment Department (NMED) applied for and was awarded grant funding by EPA through the DERA Clean Diesel Program (CDP). The NMED CDP will utilize DERA funding to support emission reduction projects that reduce harmful diesel emissions generated from on-road and nonroad vehicles and equipment, thereby improving air quality and protecting human health. The NMED CDP provides competitive funding assistance opportunities in the form of pass-through grants. Public and private entities and non-profit organizations operating in New Mexico are eligible for DERA funding. Successful applicants will be considered "sub-recipients" pursuant to the federal procurement standards as defined in 2 CFR 200.330.

Diesel emissions may be reduced by employing exhaust controls, engine upgrades, idle reduction technologies, engine replacements, or vehicle/equipment replacements. All exhaust controls, engine upgrades, and idling reduction technologies funded under this award must be verified by the EPA or the California Air Resources Board (CARB). Lists of EPA and CARB verified technology may be found at www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel and www.arb.ca.gov/diesel/verdev/vt/cvt.htm, respectively. Engine replacements utilizing all-electric technology (i.e., zero emission) do not require EPA or CARB certification. New vehicles or engines must be certified to meet the most current EPA emissions standards for on-road diesel vehicles.

DIESEL EMISSIONS

Due to EPA regulations, diesel engines manufactured today are cleaner than ever before. However, because diesel engines can operate for 30 years or more, millions of older, dirtier engines are still in use. Reducing exposure to diesel exhaust from these engines is especially important for human health and the environment. EPA offers funding for projects that reduce diesel emissions from existing engines. Diesel emissions result in increased amounts of nitrogen oxides (NO_X), particulate matter (PM), carbon monoxide (CO), and hydrocarbons (HC) in the air. Additionally, diesel emissions may react in the presence of sunlight to form ground-level ozone (O_3). These pollutants can cause serious health concerns, especially for children, the elderly, and people with respiratory problems. Nationally, these emissions are linked to thousands of premature deaths, hundreds of thousands of asthma attacks, millions of lost workdays, and numerous other health impacts every year. EPA considers diesel exhaust to be a likely human carcinogen. Projects funded through this program will address and support EPA's

goal to reduce harmful diesel emissions.

AIR QUALITY IN NEW MEXICO

With the longevity, popularity and need for diesel-fueled trucks, emissions generated from diesel-fueled vehicles continue to be a growing concern, especially in those areas that are disproportionately affected by diesel fleets. DERA funds have afforded the State of New Mexico the opportunity to address the harmful emissions generated from diesel-fueled on-road and nonroad vehicles, supporting the Air Quality Bureau's (AQB's) mission.

New Mexico encompasses nineteen (19) Native American pueblos, three (3) Apache Reservations and part of the Navajo Nation within its borders. New Mexico is known for its blue skies and scenic vistas with nine federally protected Class I areas federally protected for visibility. New Mexico has several areas of concern that will receive priority for project funding (see DERA Priorities, below).

ELIGIBILITY

Any public or private entity or nonprofit organization that has eligible diesel equipment, whose business/facility/organization is based in New Mexico, has been in existence for at least three consecutive years, and whose vehicles/equipment are registered, or has an International Registration Plan (if applicable) in the State of New Mexico, is eligible to apply for and receive funding assistance through this program. Private and nonprofit entities may be required to prove their existence and length of existence before funds are awarded. These funds must go directly to the entity/organization that owns the equipment. Leased vehicles do not qualify as eligible vehicles. A letter from the organization's signature authority stating that the project could not have taken place without the funding provided by the NM CDP program must be submitted with the proposal to be considered.

A public entity is defined as the State and units of State Government; a political subdivision of the State, including a municipality and its subdivisions; a school district; or an organization composed of political subdivisions of the State. A private entity is defined as any entity that is not a unit of government, including, but not limited to, a corporation, partnership, company or other legal entity. A nonprofit organization is defined as a group that is registered as a 501(c)(3) or (6) under the Internal Revenue Service tax code and described therein. Individuals are not eligible to receive funds unless they are applying on behalf of a public or private entity or nonprofit organization as described above.

1. **Eligible Diesel Vehicles, Engines and Equipment:** Projects may include, but are not limited to, diesel emission reduction solutions from the following heavy-duty diesel emission source types:

a) Buses[1,2];
b) Medium-duty or heavy-duty trucks[3];
c) Marine engines;
d) Locomotives; and
e) Nonroad engines, equipment or vehicles used in:
    i. Construction;
    ii. Handling of cargo (including at a port or airport);
    iii. Agriculture;
    iv. Mining; or
    v. Energy production (including stationary generators and pumps).

PROJECT TYPES

These awards will fund exhaust controls, engine upgrades, idling reduction technologies, engine replacements, and vehicle/equipment replacements. All exhaust controls, engine upgrades, and idling reduction technologies used in projects must be verified by either EPA or CARB.

Any project that would not be eligible for funding under the *2021 Diesel Emissions Reduction Act (DERA) State Grants Program Guide* (EPA-420-B-21-027, May 2021 https://www.epa.gov/sites/default/files/2021-05/documents/420b21027.pdf) for FY 2022 funds; *2019-2020 Diesel Emissions Reduction Act (DERA) State Grants Program Guide* (EPA-420-B-20-018, February 2020 https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100ZK19.pdf) for FY 2019 funds; or under the *2017-2018 State Clean Diesel Grant Program Information Guide* (EPA-420-B-16-046a, April 2018 www.epa.gov/sites/production/files/2018-04/documents/fy17-18-state-program-guide pdf) for FY 17-18 funds, may not be funded with NMED CDP funds, including matching funds, if applicable.

1. **Verified Exhaust Controls:** Exhaust controls include pollution control devices installed in the exhaust system (such as diesel oxidation catalysts (DOCs) and diesel particulate matter filters (DPFs)), or systems that include crankcase emission control (like a closed crankcase ventilation (CCV) filtration system). NMED may fund up to 100% of the cost (labor and equipment) for an eligible verified emission control. NMED suggests that each applicant requesting diesel particulate filters, data log the exhaust temperature of all vehicles to be considered before the application is submitted, so that there is evidence that the fleets can accommodate the technology.

[1] For purposes of the Program, buses include school buses of Type A, B, C and D. To be an eligible school bus, a vehicle should meet the definition of a school bus as defined by the National Highway Transportation Safety Administration. This definition includes, but is not limited to: 1) A bus that is used for purposes that included carrying students to and from school or related events on a regular basis; 2) Buses that are identified with the words "School Bus"; and 3) Buses that are painted National School Bus Glossy Yellow.

[2] For purposes of the Program, buses include medium- and heavy-duty transit buses (see footnote 3, below).

[3] For purposes of the Program, medium heavy-duty and heavy heavy-duty highway vehicles are defined as Class 5 through Class 8: Class 5 (16,001 – 19,500 lbs. GVWR); Class 6 (19,501 – 26,000 lbs. GVWR); Class 7 (26,001 – 33,000 lbs. GVWR); Class 8a (33,001 – 60,000 lbs. GVWR); Class 8b (60,001 lbs. GVWR and over).

A list of eligible, EPA verified exhaust control technologies is available at https://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel and a list of eligible, California Air Resources Board (CARB) verified exhaust control technologies is available at www.arb.ca.gov/diesel/verdev/vt/cvt.htm The types of exhaust control technologies proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the proposal at the time of proposal submission to EPA. If selected for funding, the actual exhaust control technologies used by the grant recipient must be specifically named on EPA or CARB's Verified Exhaust Control Technologies lists at the time of acquisition and used only for the vehicle/engine applications specified on the list.

2. **Verified/Certified Engine Upgrades and Remanufacture Systems:** Generally, a remanufacture system is applied during an engine rebuild and involves the removal of parts on an engine and replacement with parts that cause the engine to represent an engine configuration which is cleaner than the original engine. Some nonroad and marine engines can be upgraded to reduce their emissions by applying manufacturer upgrades that are currently verified by EPA or CARB as a package of components demonstrated to achieve specific levels of emission reductions. Some locomotives and marine engines can be upgraded through the application of a certified remanufacture system (i.e., kit) that is used to rebuild the engine to represent a cleaner engine configuration. Engine remanufacture systems may not be available for all engines, and not all remanufacture systems may achieve an emissions benefit. Proposals for certified remanufacture systems should include a discussion of the availability of engine remanufacture systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the upgrade will result in a PM and/or NOx emissions benefit .

   NMED may fund up to 40% of the cost (labor and equipment) of an eligible nonroad, locomotive or marine engine upgrade. To be eligible for funding, the upgrade must either be a verified retrofit or a certified remanufacture system that will result in a significant emissions benefit by rebuilding the engine to a cleaner engine configuration, and the engine must be currently operating and performing its intended function. If a certified remanufacture system for a locomotive includes a full engine replacement, the funding restrictions in the Fleet Expansion section (see page 14) will apply. If a certified remanufacture system is applied at the time of rebuild, funds under this award cannot be used for the entire cost of the engine rebuild, but only for the cost of the certified remanufacture system and associated labor costs for installation of the kit.

   A list of eligible, EPA verified engine upgrade technologies is available at: www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel

   Lists of certified remanufacture systems for locomotives and marine engines are available at: www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data.

   Additional information on remanufacture systems, is available at: www.epa.gov/vehicle-

and-engine-certification/remanufacture-systems-category-1-and-2-marine-diesel-engines.

The actual engine upgrades or remanufacture systems used by the grant recipient must be specifically named on EPA's list of certified remanufacture systems or EPA or CARB's Verified Exhaust Control Technologies lists at the time of acquisition and used only for the vehicle/engine applications specified on the lists.

3. **Cleaner Fuels/Additives Use:** Eligible cleaner fuels and additives are limited to those verified by EPA and/or CARB to achieve emissions reductions when applied to an existing diesel engine. Cleaner fuels include, but are not limited to, biodiesel and other certified alternative fuels. NMED will not fund stand-alone cleaner fuel/additive use. For new or expanded use of a cleaner fuel, this funding can cover the cost differential between the cleaner fuel/additive and conventional diesel fuel if that cleaner fuel is used in combination, and on the same vehicle, with a new eligible verified exhaust control or an eligible engine upgrade or an eligible certified engine replacement or an eligible certified vehicle/equipment replacement funded under this program, as described in this Section. A list of eligible, EPA-verified cleaner fuels and additives is available at: http://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel ; a list of eligible, CARB-verified cleaner fuels and additives is available at: www.arb.ca.gov/diesel/verdev/vt/cvt.htm . The types of fuels and additives (e.g., biodiesel, cetane enhancers) proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the application and used only for the vehicle/engine applications specified on the list to be eligible for funding.

4. **Verified Idle Reduction Technologies:** An idle reduction project is generally defined as the installation of a technology or device that reduces unnecessary idling of diesel engines and/or is designed to provide services (such as heat, air conditioning, and/or electricity) to vehicles and equipment that would otherwise require the operation of the main drive or auxiliary engine(s) while the vehicle is temporarily parked or remains stationary. The reduction in idling will conserve diesel fuel and lower emissions.

   Eligible, EPA verified idle reduction technologies are available at: www.epa.gov/verified-diesel-tech/smartway-technology. The technology categories include:

   a) auxiliary power units and generator sets (APU/GS);
   b) battery air conditioning systems (BAC);
   c) thermal storage systems (TSS);
   d) electrified parking spaces (truck stop electrification, (EPS/TSE));
   e) fuel-operated heaters, aka Direct Fired Heaters (FOH aka DFH);
   f) shore connection systems for locomotives (SCS); and
   g) automatic engine shutdown/start-up systems (AESS) for locomotives.

   The actual idle reduction technologies used must be specifically named on EPA's SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle/engine

applications specified on the list.

Please note that technologies for the electrification of engines/vehicles/equipment other than those specifically listed on EPA's SmartWay Verified Technologies list cannot be considered verified idle reduction technologies but may be eligible as an engine replacement (Certified Engine Replacement section, below) or a vehicle/equipment replacement (Certified/Verified Vehicle and Equipment Replacements section, below).

5. **Verified Idle Reduction Technologies on Locomotives:** NMED may fund up to 40% of the cost (labor and equipment) of eligible, verified idle reduction technologies on locomotives.
    a) Automatic engine shutdown/start-up systems
    b) Auxiliary power units and generator sets
    c) Fuel operated heaters (direct fired heaters)
    d) Shore power connection systems

    No funds awarded under this grant shall be used for locomotive shore connection system projects that are expected to be used less than 1,000 hours/year.

6. **Electrified Parking Spaces:** Electrified Parking Spaces (EPS), also known as Truck Stop Electrification (TSE), operate independently of the truck's engine and allow the truck engine to be turned off as the EPS system supplies heating, cooling, and/or electrical power. The EPS system provides off-board electrical power to operate:

    a) an independent heating, cooling, and electrical power system;
    b) a truck-integrated heating and cooling system; or
    c) a plug-in refrigeration system that would otherwise be powered by an engine.

    NMED may fund up to 30% of the cost (labor and equipment) of eligible electrified parking space technologies, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional. Examples of eligible EPS costs include, but are not limited to, the purchase and installation of electrical infrastructure or equipment to enable heating, cooling, and use of cab power for parked trucks, or to enable the use of power for transport refrigeration units (TRUs) and auxiliary power systems at distribution centers, intermodal facilities, and other places where trucks congregate. Examples of *ineligible* costs for EPS include, but are not limited to: on-board auxiliary power units and other equipment installed on trucks; equipment and services unrelated to heating and cooling (e.g., telephone, internet, television, etc.); TRUs; electricity costs; and operation and maintenance costs.

    Applicants submitting proposals for electrified parking spaces must address the following in the proposal narrative: the proposed installation location, number of spaces, estimated occupancy rates, estimated emissions reduction, description of the technology, manufacturer, and the agency that is verifying the technology (either EPA or CARB). Also, if the proposal is for electrified parking spaces only, do not complete the spreadsheets.

Finally, for proposals of electrified parking spaces, please provide proof of property ownership by the organization or permission to complete the project from property owner of the parcel where the electrified parking will be installed.

Please see the TRU Factsheet found at www.epa.gov/dera/state for information on TRUs and eligible TRU projects.

7. **Highway Idle Reduction Technologies:** NMED may fund up to 25% of the cost (labor and equipment) of stand-alone installations of eligible, verified idle reduction technologies on long-haul trucks and school buses. Funding can cover up to 100% of the cost (labor and equipment) for verified idle reduction technologies installed on long haul Class 8 trucks and school buses, if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this Program, as described in this Section. Funding can cover up to 100% of the cost (labor and equipment) for verified idle reduction technologies installed on long haul Class 8 trucks and school buses with model year 2006 or older engines that have been previously retrofitted with a verified emission control device.

8. **Verified Aerodynamic Technologies and Verified Low-Rolling Resistance Tires**: To improve fuel efficiency, long haul Class 8 trucks can be retrofitted with aerodynamic trailer fairings or the fairings can be provided as new equipment options. Certain tire models can provide a reduction in NOx emissions through fuel savings, relative to the "standard" new tires for long haul Class 8 trucks, when used on all axles.

   Eligible, EPA verified aerodynamic technologies are available at: www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices including:

   a) gap fairings that reduce the gap between the tractor and the trailer to reduce turbulence;
   b) trailer side skirts that minimize wind under the trailer; and
   c) trailer rear fairings that reduce turbulence and pressure drop at the rear of the trailer.

   A list of EPA-verified low-rolling resistance tires is available at: www.epa.gov/verified-diesel-tech/smartway-verified-list-low-rolling-resistance-lrr-new-and-retread-tire and includes both dual tires and single wide tires. (Single wide tires replace the double tire on each end of a drive or trailer axle, in effect turning an "18 wheeler" into a "10 wheeler"). Low-rolling resistance tires can be used with lower-weight aluminum wheels to further improve fuel savings; however, aluminum wheels are not eligible for funding under this program. To be eligible for funding, the technologies/tires used by the grant recipient must be specifically named on EPA's SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle/engine applications specified on the list.

   NMED cannot fund stand-alone aerodynamic technologies or low-rolling resistance tires.

NMED may fund up to 100% of the cost (labor and equipment) for verified aerodynamic technologies or verified low-rolling resistance tires installed on long haul Class 8 trucks if combined on the same vehicle with the new installation of one or more of the Verified Exhaust Controls funded under this program, as described in Subparagraph 1 of this Section.

Note: Low-rolling resistance tires are not eligible for funding where these types of tires have already been installed on the truck.

9. **Certified Engine Replacement:** Engine replacement includes, but is not limited to, diesel engine replacement with an engine certified for use with diesel or a clean alternative fuel, diesel engine replacement with an electric power source (grid, battery, or fuel cell [4]), and/or diesel engine replacement with an electric generator(s) (genset). All-electric (i.e., zero emission) engine replacements do not require EPA or CARB certification.

   The eligible cost of engine replacement includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional, including related labor expenses. Charges for equipment and parts on engine replacement projects are only eligible for funding if they are included in the certified engine configuration and/or are required to ensure the effective installation and functioning of the new technology but are not part of typical vehicle or equipment maintenance or repair. Examples of ineligible engine replacement costs include, but are not limited to, tires, cabs, axles, paint, brakes, and mufflers. For engine replacement with battery, fuel cell, and grid electric, examples of eligible engine replacement costs include, but are not limited to, electric motors; electric inverters; battery assembly; direct drive transmission/gearbox; regenerative braking system; vehicle control/central processing unit; vehicle instrument cluster; hydrogen storage tank; hydrogen management system; fuel cell stack assembly; and the purchase and installation of electrical infrastructure or equipment to enable the use of power. Examples of ineligible costs include, but are not limited to, electricity, and operation and maintenance costs.

   a) Locomotive, Marine, and Nonroad Diesel Vehicles and Equipment:

      i. NMED may fund up to 40% of the cost (labor and equipment) of replacing a diesel engine with: a 2017 model year or newer engine utilizing FY17-18 funds; or 2019 model year or newer engine utilizing FY19 funds or FY22 funds; certified to EPA emission standards. Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to the engine in engine model year 2017 for FY17-18 funds, or 2019 for FY19 funds. Nonroad, locomotive, and marine engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-nonroad-engines-and-vehicles.

[4] Hydrogen fuel cells are only eligible for engine replacements for eligible urban transit buses as defined in the program and eligible drayage trucks as defined in this program.

ii. NMED may fund up to 60% of the cost (labor and equipment) of replacing a diesel engine with an electric motor or electric power source.

b) Highway Diesel Vehicles:

i. NMED may fund up to 40% of the cost (labor and equipment) of replacing a diesel engine with: a 2019 model year or newer engine utilizing FY 22 funds; a 2017 model year or newer engine utilizing FY17-18 funds; or 2016 model year or newer engine utilizing FY19 funds; certified to EPA emission standards. Highway engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-heavy-duty-highway-engines-and-vehicles.

ii. NMED may fund up to 50% of the cost (labor and equipment) of replacing a diesel engine with a 2019 model year or newer engine utilizing FY 22 funds; a 2017 model year or newer engine utilizing FY17-18 funds; or 2016 model year or newer engine utilizing FY19 funds; that is certified to CARB's Optional Low-NO_X Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NOx. Engines certified to CARB's Optional Low-NO_X Standards may be found by searching CARB's Executive Orders for Heavy-duty Engines and Vehicles, found at: https://ww2.arb.ca.gov/new-vehicle-and-engine-certification-executive-orders https://ww2.arb.ca.gov/new-vehicle-and-engine-certification-executive-orders or see the "How to Identify Low NOx Certified Engines" Fact Sheet on EPA's website: www.epa.gov/cleandiesel/clean-diesel-state-allocations

iii. NMED may fund up to 60% of the cost (labor and equipment) of replacing a diesel engine with an electric motor or an electric power source.

10. **Certified/Verified Vehicle and Equipment Replacements:** Nonroad and highway diesel vehicles and equipment, locomotives, and marine vessels can be replaced under this program with newer, cleaner vehicles and equipment that operate on diesel or alternative fuels and use engines certified by EPA and, if applicable, CARB to meet a more stringent set of engine emission standards. Replacement includes, but is not limited to, diesel vehicle/equipment replacement with newer, cleaner diesel, electric (grid, battery, or fuel cell[5]), hybrid or alternative fuel vehicles/equipment. All-electric (i.e., zero emission) vehicles and equipment do not require EPA or CARB certification.

    The eligible cost of a vehicle/equipment replacement includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment

[5] Hydrogen fuel cell vehicles and equipment are only eligible as replacements for eligible transit buses, shuttle buses, drayage trucks, terminal tractors/yard hostlers, stationary generators and forklifts, as defined in this program.

functional. The cost of additional "optional" components or "add-ons" that significantly increase the cost of the vehicle may not be eligible for funding under the grant. The replacement vehicle should resemble the replaced vehicle in form and function. For grid electric powered equipment replacements, examples of eligible replacement costs include, but are not limited to, the purchase and installation of electrical infrastructure or equipment to enable the use of power. Examples of ineligible costs include, but are not limited to, electricity, and operation and maintenance costs.

a) Locomotives, Marine Vessels and Nonroad Diesel Vehicles and Equipment:

   i. NMED may fund up to 25% of the cost of a replacement locomotive, marine vessel, or nonroad vehicle or piece of equipment powered by: a 2017 model year or newer engine utilizing FY17-18 funds; or 2019 model year or newer engine utilizing FY19 or FY22 funds; certified to EPA emission standards. Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to: EMY 2017 utilizing FY17-18 funds; or EMY 2019 utilizing FY19 or FY22 funds. Nonroad, locomotive and marine engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-nonroad-engines-and-vehicles.

   ii. NMED may fund up to 45% of the cost of a new, all-electric locomotive, marine vessel, or nonroad vehicle or piece of equipment.

b) Highway Diesel Vehicles and Buses (other than Drayage):

   i. NMED may fund up to 25% of the cost of a replacement vehicle powered by: a 2019 model year or newer engine utilizing FY 22 funds; a 2017 model year or newer engine utilizing FY17-18 funds; or 2016 model year or newer engine utilizing FY19 funds; certified to EPA emission standards. Highway engine emission standards are found on EPA's website at: https://www.epa.gov/emission-standards-reference-guide/epa-emission-standards-heavy-duty-highway-engines-and-vehicles

   ii. NMED may fund up to 35% of the cost of a replacement vehicle powered by: a 2019 model year or newer engine utilizing FY 22 funds; a 2017 model year or newer engine utilizing FY17-18 funds; or 2016 model year or newer engine utilizing FY19 funds; certified to meet CARB's Optional Low-NOx Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NOx. Engines certified to CARB's Optional Low NO_X Standards may be found by searching CARB's Executive Orders using the keywords of Heavy-duty Engines and Vehicles found at: https://ww2.arb.ca.gov/new-vehicle-and-engine-certification-executive-orders. Or see the "How to Identify Low NOx Certified Engines" document on EPA's website: www.epa.gov/cleandiesel/clean-diesel-state-

allocations

iii. NMED may fund up to 45% of the cost of a new all-electric replacement vehicle.

c) Drayage Vehicles: NMED may fund up to 50% of the cost of a replacement drayage truck powered by: a 2015 model year or newer certified engine, utilizing FY22 funds; a 2012 model year or newer certified engine, utilizing FY17-18 funds; or 2013 model year or newer certified engine, utilizing FY19 funds.

i. A "Drayage Truck" means any Class 8 (gross vehicle weight rating (GVWR) greater than 33,000 lbs.) highway vehicle operating on or transgressing through port or intermodal rail yard property for the purpose of loading, unloading, or transporting cargo, such as containerized, bulk or break-bulk goods.

ii. Drayage Operating Guidelines: If a proposal for the replacement of drayage trucks is selected for funding, the grant recipient will be required to establish guidelines to ensure that any existing truck replaced with grant funds has a history of operating on a frequent basis over the prior year as a drayage truck, and to ensure any new truck purchased with grant funds is operated in a manner consistent with the definition of a drayage truck, as defined above. For an example of sample guidelines, see https://www.epa.gov/dera/state-grants-past-program-documents.

iii. Required/Scheduled Maintenance: EPA will fund the required or scheduled vehicle maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on drayage trucks. Funding for required maintenance is available for the duration of the project period.

11. **Clean Alternative Fuel Conversions:** Conventional, original equipment manufacturer (OEM) highway diesel vehicles and engines that are altered to operate on alternative fuels such as propane or natural gas are classified as aftermarket clean alternative fuel conversions. Clean alternative fuel conversions are accomplished by applying a certified or compliant alternative fuel conversion "kit" to an existing highway diesel engine.

Funding can cover up to 40% of the cost (labor and equipment) of an eligible certified or compliant clean alternative fuel conversion. Eligible conversions are limited to those systems that have been certified by EPA or CARB, or those systems that have been approved by EPA for Intermediate-Age engines. EPA's lists of "Certified Conversion Systems for New Vehicles and Engines" and "Conversion Systems for Intermediate-Age Vehicles and Engines" are available at: www.epa.gov/vehicle-and-engine-certification/lists-epa-compliant-alternative-fuel-conversion-systems. CARB's list of "Approved Alternate Fuel Retrofit Systems" is available at: www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm.

To be eligible for funding, conversion systems for engine model years 2006 and earlier must achieve at least a 30% NO_X reduction and a 10% PM reduction from the applicable certified emission standards of the original engine. To be eligible for funding, conversion systems for engine model years 2007 and newer must achieve at least a 20% NO_X reduction with no increase in PM from the applicable certified emission standards of the original engine. Proposals for clean alternative fuel conversions should include a discussion of the availability of conversion systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the conversions result in the required emissions benefit.

Most states require the use of EPA-approved systems. Vehicles operating in California, and other states that require CARB-approved aftermarket systems, must follow conversion rules issued by CARB. Compliance with applicable state law is the sole responsibility of the fleet owner.

12. **Ownership, Usage and Remaining Life Requirements**
    a) The existing vehicle, engine, or equipment must be fully operational. Operational equipment must be able to start, move, and have all necessary parts to be operational.
    b) The participating fleet owner must currently own and operate the existing vehicle or equipment and have owned and operated the vehicle during the two years prior to upgrade.
    c) The existing vehicle, engine, or equipment must have at least three years of remaining life at the time of upgrade. Remaining life is the fleet owner's estimate of the number of years until the unit would have been retired from service if the unit were not being upgraded or scrapped because of the grant funding. The remaining life estimate is the number of years of operation remaining even if the unit were to be rebuilt or sold to another fleet. The remaining life estimate depends on the current age and condition of the vehicle at the time of upgrade, as well as things like usage, maintenance, and climate.
    d) **Highway Usage**: The mileage of multiple units may be combined to reach the thresholds below where those units will be scrapped and replaced with a single unit.
        i. **School Buses**: To be eligible for funding, the existing vehicle must have accumulated at least 7,000 miles/year during the two years prior to upgrade, or during calendar year (Jan-Dec) 2019.
        ii. **All Other Highway Engines**: To be eligible for funding, the existing vehicle must have accumulated at least 7,000 miles/year during the two years prior to upgrade.
    e) **Nonroad, Locomotive and Marine Usage:** The engine operating hours of multiple units may be combined to reach the thresholds below where those units will be scrapped and replaced with a single unit.
        i. **Agricultural Pumps**: To be eligible for funding, agricultural pumps must operate at least 250 hours/year during the two years prior to upgrade.
        ii. **All Other Nonroad Engines**: To be eligible for funding, nonroad engines must

operate at least 500 hours/year during the two years prior to upgrade.

iii. **Locomotive and Marine Usage**: To be eligible for funding the existing locomotive and marine engines must operate at least 1,000 hours/year during the two years prior to upgrade.

f) **Documentation Requirements:** Participating fleet owners must attest to each criterion in a)-e) above in a signed eligibility statement which includes each vehicle make, model, year, vehicle identification number, odometer/usage meter reading, engine make, model, year, horsepower, engine ID or serial number, and vehicle/equipment registration/licensing number and state. This documentation is not required at the time of application submittal to NMED but is required as part of programmatic reporting to verify the eligible use of grant funds. A sample eligibility statement may be found at www.epa.gov/dera/state .

DERA PROGRAMMATIC PRIORITIES

The principal objective of the sub-awards under this program is to achieve significant reductions in diesel emissions in terms of tons of pollution produced and reductions in diesel emissions exposure from vehicles, engines and equipment operating in areas designated as poor air quality areas.

The term "project location" refers to the primary area where the affected vehicles/engines operate, or the primary area where the emissions benefits of the project will be realized. A list of priority counties and areas can be found at: https://www.epa.gov/sites/default/files/2021-02/documents/fy21-priority-county-list.pdf . These counties and areas were identified as priority locations for the DERA program because they are designated as Nonattainment Areas or Maintenance Areas for the ozone and/or $PM_{2.5}$ NAAQS, and/or because the county is a priority diesel PM area. A priority diesel PM area is a county that contains at least one census tract where the modeled ambient diesel PM concentration from the 2014 National Air Toxics Assessment (https://www.epa.gov/national-air-toxics-assessment) is above the 80th percentile (0.68 µg/m3) for census tracts nationwide. The 80th percentile is a programmatic cutoff designed to help EPA evaluate those areas that are most likely to have higher concentrations of diesel PM in the year of analysis (i.e., the year for which NATA data are available); this level was not chosen based on risk or other health-based criteria or thresholds. NATA is a screening tool and there are limitations and uncertainties associated with it; see: https://www.epa.gov/national-air-toxics-assessment/natalimitations .

Those areas in New Mexico where monitored ozone levels are equal to or greater than 95% of the National Ambient Air Quality Standard for ozone are listed below.

1. San Juan and Rio Arriba Counties in the northwest corner of New Mexico. San Juan County is near several Class I areas and is adjacent to the Navajo Nation, Southern Ute Indian Tribe, Ute Mountain Ute, and Jicarilla Apache Nation reservations. Rio Arriba County is located to the east of San Juan County. This region has a history of elevated levels of ground-level ozone and impaired visibility at nearby Class I areas. This area lies within the San Juan Basin, which is a major producer of oil and gas and has two large coal-fired power plants.

Additionally, there is heavy truck traffic on the arterial highways that traverse these counties. These highways are key to the transport of goods through this portion of the State. With the increasing popularity of both light- and heavy-duty diesel-fueled vehicles used for commercial and personal use, diesel exhaust emissions are likely to increase in this area, contributing to the further degradation of air quality in this area.

2. The City of Albuquerque/Bernalillo County, Sandoval, Torrance and Valencia Counties. The Albuquerque Metropolitan Statistical Area (MSA) is a metropolitan area in central New Mexico centered on the city of Albuquerque comprising four counties: Bernalillo, Sandoval, Torrance, and Valencia. As of the 2010 United States Census, the MSA had a population of 887,077. The population is estimated to be 915,927 as of the July 1, 2018, Census estimate. Bernalillo County has a population of approximately 674,221 (2010 census, U.S. Census Bureau). Albuquerque is located at the intersection of Interstate 40 and Interstate 25. Interstate 40 is a thoroughfare for the east-west transport of goods through the State and Interstate 25 is a major north-south trade route. As the largest city in New Mexico and located at the intersection of two major thoroughfares, Albuquerque is a hub for freight fleets, distribution centers and several large truck stops. There is one international airport and three rail lines (NM Rail Runner Express, Amtrak and BNSF, a Class I rail line) located within the city. The Rail Runner Express has approximately 22 north- and south-bound commuter trains running daily through Albuquerque during the work week, while Amtrak runs two trains per day.[6] Transportation infrastructure contributes to sources of emissions generated by heavy-duty diesel-fueled vehicles. Growth in freight demand (both within and outside of New Mexico) continues to add more trucks to these corridors. Bernalillo County is bordered to the North by Sandoval County, and to the South by Valencia County, both of which have ozone levels greater than 95% of the NAAQS.

3. Doña Ana County, along the borders of both Mexico and Texas. Doña Ana County has historically had particulate matter and ozone air quality problems. There are two areas designated as nonattainment: one nonattainment area for particulate matter 10 microns or less in size (PM_{10}) in the town of Anthony, and one nonattainment area for ozone located in Sunland Park. Two major interstate highways merge in this county. Interstate 10, a thoroughfare for the east-west transport of goods, intersects with the southern terminus of I-25 in the city of Las Cruces. There is a major east/west Class I rail line that passes through the southern part of Doña Ana County, including the southern part of the ozone nonattainment area in Sunland Park. Up to 200 trains may pass through this area each day. An intermodal facility services the rail line.

4. Chavez, Roosevelt, Lea, and Eddy counties in the southeastern corner of the State. Carlsbad Caverns, a Class I area, is located in Eddy County at the northern border of the Guadalupe Mountains National Park, another Class I area, located partially in New Mexico and partially in Texas. Chavez, Roosevelt, Lea, and Eddy Counties lie within the Permian Basin, which is a

[6] See the 2014 New Mexico Department of Transportation State Rail Plan at http://dot.state.nm.us/content/nmdot/en/Transit_Rail.html .

major producer of oil and gas. In addition to the heavy presence of the oil and gas industry, there is also heavy truck traffic on the arterial highways throughout these counties.

5. EPA's 2020 National Priority Area List. The 2011 National Scale Air Toxics Assessment (NATA) included Doña Ana, Luna, and Valencia counties in EPA's 2018 National Priority Area List for counties and areas where all or part of the population was exposed to more than 2.0 micrograms per cubic meter ($\mu g/m^3$) of diesel particulate matter emissions. (https://www.epa.gov/sites/production/files/2018-04/documents/fy18-priority-counties-national.pdf). The 2021 DERA State Grants Priority County List identified counties with census tracts where NATA predicts them to have ambient diesel PM concentrations higher than the 80th percentile for census tracts nationwide. https://www.epa.gov/sites/default/files/2021-02/documents/fy21-priority-county-list.pdf . Counties in New Mexico currently listed under NATA include Bernalillo, Dona Aña, and Luna Counties. Doña Ana County also contains an area designated as nonattainment for the 2015 Ozone NAAQS. Data is sourced from EPA's Green Book of Nonattainment Areas for Criteria Pollutants (https://www.epa.gov/green-book).

In addition, priority will be given to projects located in areas that receive a disproportionate quantity of air pollution from diesel fleets, including:

a) truck stops;
b) ports, including airports;
c) rail yards;
d) rail terminals;
e) construction sites;
f) freight distribution centers; and
g) school bus depots/yards.

EXPECTED ENVIRONMENTAL OUTPUTS AND OUTCOMES

Applicants must include specific statements describing the environmental results of the proposed project in terms of well-defined outputs and, to the maximum extent practicable, well-defined outcomes that will demonstrate how the project will contribute to the priorities described above. Specifically, the proposed activities must reduce emissions from diesel fleets, thereby reducing local and regional air pollution of criteria pollutants and air toxics.

1. **Outputs:** The term "output" means an environmental activity, effort and/or associated work product related to an environmental goal and objective, pursuant to DERA, that will be produced or provided over time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period.

   Expected outputs from the projects to be funded under this announcement include, but are not limited to:

   a) the number of replaced or retrofitted engines/vehicles/equipment; and/or

b) hours of idling reduced.

Other potential outputs may include, but are not limited to:

a) engaging affected communities with respect to the design and performance of the project;
b) the project's inclusion in a broader-based environmental or air quality plan;
c) the implementation of contract specifications requiring the use of cleaner vehicles and equipment;
d) a documented commitment to continue to identify and address air quality issues in the affected community;
e) a publicly available community engagement plan for meaningful engagement of the affected communities regarding either the environmental and/or other issues that the project is intended to address;
f) adoption of an idle reduction policy;
g) providing support to clean diesel coalitions by sharing information, working with interested fleets, and addressing specific geographic needs;
h) number of subawards; or
i) dissemination of project/technology information via list serves, websites, journals and outreach events.

2. **Outcomes:** The term "outcome" means the result, effect or consequence that will occur from carrying out an environmental program or activity pursuant to DERA that is related to an environmental or programmatic goal or objective. Outcomes may be qualitative and environmental, behavioral, health-related or programmatic in nature, but must also be quantitative. They may not necessarily be achievable within an assistance agreement funding period.

   Expected outcomes from the projects to be funded under this announcement include, but are not limited to:

   a) tons of pollution reduced over the lifetime of the vehicles/engines/equipment, specifically: fine particulate matter ($PM_{2.5}$); NO_X; CO and carbon dioxide (CO_2); and or volatile organic compounds (VOCs);
   b) tons of pollution reduced annually;
   c) lifetime total project cost effectiveness for NOx and $PM_{2.5}$;
   d) lifetime capital cost effectiveness for NOx and $PM_{2.5}$;
   e) net reduction in gallons of diesel fuel used; and
   f) benefits to the communities affected by the project, including improvements to human health and the environment, the local economy, social conditions, and the welfare of residents in such communities.

   Other potential outcomes may include, but are not limited to:

a) community engagement and partnership;
b) improved ambient air quality;
c) health benefits achieved;
d) changes in driver behavior regarding idling practices;
e) increased understanding of the environmental or economic effectiveness of the implemented technology;
f) increased public awareness of the project and results;
g) widespread adoption of the implemented technology;
h) demonstration and deployment of zero and near-zero emission vehicles or engines; and
i) emission reductions along freight transportation corridors.

FUNDING RESTRICTIONS

1. **Federal Matching Funds:** No funds awarded under the NMED CDP shall be used for matching funds for other federal grants unless expressly authorized by statute. Likewise, the recipient may not use federal funds as matching or cost-share funds for the NMED CDP, including funds received under the DERA National Grants, DERA School Bus Rebates, or federal Supplemental Environmental Project (SEP) funds.

2. **Expenses Incurred Prior to the Project Period**: Except for eligible pre-award costs as defined in 2 CFR §200.458 and as authorized by 2 CFR §200.309 and 2 CFR §1500.8, no funds awarded under the NMED CDP shall be used to cover expenses incurred prior to the project period set forth in any assistance agreement funded under the Program. Additionally, except for eligible pre-award costs as defined above, expenses incurred prior to the project period set forth in any assistance agreement funded under the Program are not eligible as a cost-share.

3. **Emissions Testing:** No funds awarded under the NMED CDP shall be used for emissions testing and/or air monitoring activities (including the acquisition cost of emissions testing equipment), or research and development.

4. **Fueling Infrastructure:** No funds awarded under the NMED CDP shall be used for fueling infrastructure, such as that used for the production and/or distribution of biodiesel, compressed natural gas, liquefied natural gas, or other fuels.

5. **Mandated Measures:** Pursuant to 42 U.S.C. 16132(d)(2), no funds awarded under the NMED CDP shall be used to fund the costs of emission reductions that are mandated under federal law. Projects which include locomotives and/or marine engines and/or stationary engines must provide the state and EPA a clear and concise justification for why/how the proposed emission reduction are not subject to the Restriction for Mandated Measures. Sufficient information must be provided to support the justification, including maintenance records, if applicable.

6. **Normal Attrition (FY17-18 funding only)**: Engine, vehicle, and equipment replacements that would have occurred through normal attrition are the result of normal fleet turnover and are not eligible for funding under this program. Normal attrition is generally defined as a replacement that is scheduled to take place within 3 years of the project start date. Normal attrition is typically defined by the vehicle or fleet owner's budget plan, operating plan, standard procedures, or retirement schedule. For example, if a school bus fleet typically retires vehicles after 20 years, a bus that is currently in its 18th or 19th year of service is not eligible for replacement. A bus that is currently in its 17th year of service and has three years of service remaining (as defined by the fleet's retirement schedule) is eligible for replacement. Normal attrition does not include replacements that must occur due to a state or local mandate.

7. **Fleet Expansion**: Funding under the NMED CDP cannot be used for the purchase of vehicles, engines, or equipment to expand a fleet. Engine, vehicle, and equipment replacement projects are eligible for funding on the condition that the following criteria are satisfied:

    a) The replacement vehicle, engine, or equipment will continue to perform the same function and operation as the vehicle, engine, or equipment that is being replaced.
    b) For projects utilizing FY22 funding: The cost of optional components or "add-ons" that significantly increase the cost of the vehicle may not be eligible for funding under the grant; the replacement vehicle should resemble the replaced vehicle in form and function.
    c) The replacement vehicle, engine, or equipment will be of the similar type and gross vehicle weight rating or horsepower as the vehicle, engine, or equipment being replaced.

        i. Nonroad: Horsepower increases of more than twenty-five (25) percent (forty (40) percent for projects utilizing FY22 funding) will require specific approval by EPA prior to purchase, and the applicant may be required to pay the additional costs associated with the higher horsepower equipment.

        ii. Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle (Class 5, 6, 7, or 8). Exceptions may be granted for vocational purposes, and any exceptions will require specific EPA approval prior to purchase.

    d) The vehicle, equipment, and/or engine being replaced must be scrapped or rendered permanently disabled within ninety (90) days of being replaced.

        i. If a 2010 engine model year (EMY) or newer highway vehicle is replaced, the 2010 EMY or newer vehicle may be retained or sold if the 2010 EMY or newer vehicle will replace a pre-2009 EMY vehicle, and the pre-2009 EMY

vehicle will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the 2010 EMY or newer vehicle currently operates; however alternative scenarios will be considered. All equipment must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and will require prior EPA approval.

ii. If a Tier 2, Tier 3, or Tier 4 locomotive, marine, or nonroad vehicle, equipment or engine is replaced, the units may be retained or sold if they will replace a similar, lower Tiered unit, and the lower Tiered unit will be scrapped. It is preferred that the scrapped unit currently operates within the same project location(s) as the original Tier 2, 3, or 4 unit currently operates, however alternative scenarios will be considered. All equipment must operate within the United States. Under this scenario, a detailed scrappage plan must be submitted and will require prior EPA approval.

iii. Cutting a three-inch-by-three-inch hole in the engine block (the part of the engine containing the cylinders) is the preferred scrapping method. Other acceptable scrappage methods may be considered and will require prior EPA approval.

iv. Disabling the chassis may be completed by cutting through the frame/frame rails on each side at a point located between the front and rear axles. Other acceptable scrappage methods may be considered and will require prior written approval from the EPA Project Officer.

v. Evidence of appropriate disposal is required in a final assistance agreement report submitted to EPA. Participating fleet owners must attest to the appropriate disposal in a signed scrappage statement. A sample scrappage statement may be found at https://www.epa.gov/dera/state . The scrappage statement must include: 1) Vehicle owner's name and address; 2) Vehicle make/model/year, VIN, odometer reading or usage meter reading, engine model/year/horsepower/ID or serial number, as applicable; 3)Name, address, and signature of dismantler; 4) Date engine and/or vehicle/equipment was scrapped; 5) Statement attesting to scrappage of vehicle/engine as defined above; 6) Signature of participating fleet owner; 7) digital photos of: the side profile of the vehicle, prior to disabling; VIN tag or equipment serial number; engine tag (showing serial number, engine family number, and engine model year); before and after pictures of the destroyed engine block; and cut frame rails or other cut structural components as applicable.

vi. Equipment and vehicle components that are not part of the engine or chassis may be salvaged from the unit being replaced (e.g., plow blades, shovels,

seats, tires, etc.). If disabled engines, disabled vehicles, disabled equipment, or parts are to be sold, program income requirements apply.

vii. For tire replacement projects, the original tires should be scrapped according to local or state requirements, or the tires can be salvaged for reuse or retreading. If salvaged tires are sold, program income requirements apply.

8. **Single-Wide Wheels**: No funds awarded under the NMED CDP shall be used for the purchase of single-wide wheels except where a fleet is retrofitting from standard dual tires to SmartWay verified single-wide low-rolling resistance tires. In this case, the cost of single-wide wheels would be acceptable as additional equipment necessary to use the SmartWay verified technology.

9. **Auxiliary Power Units**: No funds awarded under the NMED CDP shall be used for the purchase of APUs or generators for vehicles with engine model year 2007 or newer.

10. **Replacement Technologies:** No funds awarded under the NMED CDP shall be used for the purchase of exhaust controls (engine retrofits), idle reduction technologies, low-rolling resistance tires or advanced aerodynamic technologies if similar technologies have previously been installed on the truck or trailer.

11. **Highway Model Year**: No funds awarded under the NMED CDP shall be used to retrofit (including idle reduction technologies and aerodynamics and tires), convert, or replace a transit bus, medium-duty, or heavy-duty highway vehicle with: engine model year 1994 and older or 2010 and newer for projects utilizing FY17-18 funds; or 1995 model year and older for projects utilizing FY19 funds, or to retrofit engine model year 2007 and newer with diesel oxidation catalysts (DOCs) or diesel particulate filters (DPFs), or retrofit engine model year 2010 and newer with selective catalytic reduction (SCR), or replace engine model year 2007-2009 for projects utilizing FY17-18 funds; or 2010 or newer for projects utilizing FY19 or FY22 funds, with other than all-electric (zero-emission) or low-NO_x. Refer to Table 1a and 1b for further explanation.

12. **Clean Alternative Fuel Conversion:** No funds awarded under the NMED CDP shall be used to purchase certified/approved conversion systems that do not meet the following criteria:

    a) Existing engine model 1995-2006 utilizing FY17-18 funds; or 1996-2006 model year utilizing FY19 funds: Conversion kit must be certified or approved to achieve at least a 30% NOx reduction and a 10% PM reduction from the applicable certified emission standard of the original engine.

    b) Existing engine model 2007-2009 utilizing FY17-18 funds; or 2007 and newer utilizing FY19 funds: Conversion kit must be certified or approved to achieve at least a 20% NOx reduction with no increase in PM from the applicable certified emission standards of the original engine.

Table 1a. Medium and Heavy-Duty Truck, Transit Bus, and School Bus Project Eligibility FY17-18 Funding

Current Engine Model Year (EMY)	DOC +/- CCV	DPF	SCR	Verified Idle Reduction, Tires, or Aero- dynamics	Vehicle or Engine Replacement: EMY 2017+ (2012+ for Drayage)	Vehicle or Engine Replacement: Electric	Clean Alternative Fuel Conversion
≤ 1994	No	No	No	No	No	No	No
1995 - 2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 - 2009	No	No	Yes	Yes*	No	Yes	Yes
2010 - newer	No	No	No	No	No	No	No

* Auxiliary Power Units and generators are not eligible on vehicles with EMY 2007 or newer.

Table 2b. Medium and Heavy-Duty Truck, Transit Bus, and School Bus Project Eligibility FY19 Funding

Current Engine Model Year (EMY)	DOC +/- CCV	DPF	SCR	Verified Idle Reduction, Tires, or Aero-dynamics	Vehicle or Engine Replacement: EMY 2016+ (2013+ for Drayage)	Vehicle or Engine Replacement: EMY 2016+ Only Zero Emission or Low-NOx	Clean Alternative Fuel Conversion
older -1995	No	No	No	No	No	No	No
1996 -2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 -2009	No	No	Yes	Yes*	Yes	Yes	Yes
2010 -newer	No	No	No	Yes*	No	Yes	Yes

* Auxiliary Power Units and generators are not eligible on vehicles with EMY 2007 or newer.

Table 1c: Medium and Heavy-Duty Truck, Transit Bus, and School Bus Project Eligibility FY22 Funding

Current Engine Model Year (EMY)	DOC +/- CCV	DPF	SCR	Verified Idle Reduction, Tires, or Aero-dynamics	Vehicle or Engine Replacement: EMY 2019+ (2015+ for Drayage)	Vehicle or Engine Replacement: EMY 2019+ Zero Emission[2] or Low-NO_x[3]	Clean Alternative Fuel Conversion
older - 2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 - 2009	No	No	Yes	Yes[1]	Yes	Yes	Yes
2010 - newer	No	No	No	Yes[1]	No	Yes	Yes

[1]Auxiliary power units and generators are not eligible on vehicles with EMY 2007 or newer.
[2]Eligible fuel cell projects are limited to hydrogen fuel cell engine replacements for eligible urban transit buses, shuttle buses and drayage trucks, and hydrogen fuel cell engine replacements for eligible urban transit buses, shuttle buses, and drayage trucks.
[3]Please see the Low-NOx Engine Factsheet found at www.epa.gov/dera/state for guidance on identifying engines certified to meet CARB's Optional Low NOx Standards.

13. **Nonroad Operating Hours**: No funds awarded under the NMED CDP shall be used to retrofit, replace or upgrade a nonroad engine that operates less than 500 hours per year during the two years prior to upgrade.

14. **Nonroad Model Year and Tier:** No funds awarded under the NMED CDP shall be used to retrofit, upgrade or replace a nonroad engine that is 50 HP or less and engine model year 2004 or older for projects utilizing FY17-18 funds; or 2005 or older for projects utilizing FY19 funds, or between 51-300 HP and engine model year 1994 or older for projects utilizing FY17-18 funds; or 1995 or older for projects utilizing FY19 funds, or 301 HP or greater and engine model year 1984 or older for projects utilizing FY17-18 funds; or 1985 or older for projects utilizing FY19 funds. Refer to Table 2a and 2b for further explanation.

    a) **Equipment and Vehicle Replacement:** No funds awarded under the NMED CDP shall be used to replace nonroad vehicles and equipment with vehicles/equipment powered by unregulated, Tier 1, or Tier 2 compression ignition (CI) engines. Vehicles/equipment powered by Tier 3 and Tier 4 interim (4i) CI engines are allowed when Tier 4 final CI engines are not yet available from OEM for 2019 model year equipment under the Transition Program for Equipment Manufacturers (TPEM). No funds awarded under the NMED CDP shall be used to replace nonroad vehicles and equipment with vehicles/equipment powered by unregulated or Tier 1 nonroad large spark-ignition (SI) engines.
    b) **Engine Replacement:** No funds awarded under the NMED CDP shall be used to replace nonroad engines with Tier 3 or lower CI engines. No funds awarded under the NMED CDP shall be used to replace nonroad engines with Tier 1 or lower SI engines

Table 3a. Nonroad Engine Project Eligibility FY17-18 Funding

Current Engine Horsepower	Current Engine Model Year (EMY) and Tier	Vehicle/Equipment Replacement: EMY 2017+				Verified Exhaust Control
		Tier 0 - 2	Tier 3 - 4i	Tier 4	All-Electric	
0-50	2005 and Newer; Unregulated – Tier 2	No	No	Yes	Yes	Yes
51-300	1995 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes
51-300	1995 and Newer; Tier 3	No	No	Yes	Yes	Yes
301+	1985 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes
301+	1985 and Newer; Tier 3	No	No	Yes	Yes	Yes
Current Engine Horsepower	**Current EMY and Tier***	**Engine Replacement: EMY 2017+****				**Verified Engine Upgrade**
		Tier 0 - 3	**Tier 4**	**All-Electric**		
0-50	2005 and Newer; Unregulated Tier – 2	No	Yes	Yes		Yes
51-300	1995 and Newer; Tier 0 – Tier 3	No	Yes	Yes		Yes
301-750	1985 and Newer; Tier 0 – Tier 3	No	Yes	Yes		Yes
751+	1985 and Newer; Tier 0 – Tier 2	No	Yes	Yes		Yes

*Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2017 model year equipment under the Transition Program for Equipment Manufacturers.

**Previous engine model year engines may be used for engine replacement if the engine is certified to the same emission standards applicable to EMY 2017.

Table 4b. Nonroad Engine Project Eligibility FY19 Funding

Current Engine Horse-power	Current Engine Model Year (EMY) and Tier	Vehicle/Equipment Replacement: EMY 2019+					Verified Retrofit
		Compression Ignition			Spark Ignition	Zero Emission	
		Tier 0-2	Tier 3-4i	Tier 4	Tier 2		
0-50	2006 and Newer; Unregulated – Tier 2	No	No	Yes	Yes	Yes	Yes
51-300	1996 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes	Yes
51-300	1996 and Newer; Tier 3	No	No	Yes	Yes	Yes	Yes
301+	1986 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes	Yes
301+	1986 and Newer; Tier 3	No	No	Yes	Yes	Yes	Yes
Current Engine Horse-power	**Current Engine Model Year (EMY) and Tier**	**Engine Replacement: EMY 2019+****				**Verified Engine Upgrade**	
		Compression Ignition		**Spark Ignition**	**Zero Emission**		
		Tier 0-3	**Tier 4**	**Tier 2**			
0-50	2006 and Newer; Unregulated – Tier 2	No	Yes	Yes	Yes	Yes	
51-300	1996 and Newer; Tier 0 – Tier 3	No	Yes	Yes	Yes	Yes	
301-750	1986 and Newer; Tier 0 – Tier 3	No	Yes	Yes	Yes	Yes	
751+	1986 and Newer; Tier 0 – Tier 2	No	Yes	Yes	Yes	Yes	

*Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2019 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).

**Previous engine model year engines may be used for engine replacement if the engine is certified to the same emission standards applicable to EMY 2019.

Table 5c. Nonroad Engine Project Eligibility FY22 Funding

Current Engine Tier	Vehicle/Equipment Replacement: EMY 2019+					Verified Retrofit
	Compression Ignition			Spark Ignition	Zero Emission[3]	
	Tier 0-2	Tier 3-4i	Tier 4	Tier 2		
Unregulated – Tier 2	No	Yes[1]	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	Yes	No
Current Engine Tier	**Engine Replacement**					**Verified Engine Upgrade**
	Compression Ignition			**Spark Ignition**	**Zero Emission[4]**	
	Tier 0-2	**Tier 3-4i**	**Tier 4**	**Tier 2**		
Unregulated – Tier 2	No	Yes[2]	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	Yes	No

[1]Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2021 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).
[2]Tier 3 and Tier 4i engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section VIII.D.1 below.
[3]Eligible fuel cell projects are limited to hydrogen fuel cell equipment replacements for eligible terminal tractors/yard hostlers, stationary generators, and forklifts.
[4]Fuel cell engine replacement is not eligible.

15. **Locomotive and Marine Operating Hours**: No funds awarded under the NMED CDP shall be used to retrofit, replace, upgrade, or install idle reduction technologies on eligible locomotives or marine engines that operate less than 1000 hours per year during the two years prior to upgrade. Engine hours may be combined to reach the 1000-hour threshold where two engines will be scrapped and replaced with a single engine.

16. **Locomotive Engine Tier:** No funds awarded under the NMED CDP shall be used to replace any locomotive or locomotive engine with a Tier 3 or lower engine. No funds awarded under the Program shall be used to replace Tier 2+ line-haul locomotives or locomotive engines. No funds awarded under the Program shall be used to install Automatic Engine Start-Stop technologies on locomotives currently certified to Tier 0+ or higher. Refer to Table 3a and 3b for further explanation.

Table 6a. Locomotive Engines Project Eligibility FY17-18 Funding

Current Locomotive Tier	Engine Replacement: EMY 2017+* or Electric			Verified Exhaust Control	Idle Reduction Technology	Certified Remanufacture System
	Tier 0+ - 3	Tier 4	All-Electric			
Unregulated -Tier 2	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ switcher	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ line haul	No	No	No	Yes	Yes**	Yes
Tier 3 – Tier 4	No	No	No	No	No	No
*Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2017.						
**Automatic Engine Start-Stop technologies are only eligible to be installed on locomotives currently certified to Tier 0 or unregulated.						

Table 7b. Locomotive Engines Project Eligibility FY19 Funding

Current Locomotive Tier	Locomotive Replacement or Engine Replacement: EMY 2019+* or Electric			Verified Exhaust Control (Retrofit)	Idle Reduction Technology	Certified Remanufacture System
	Tier 0+ - 3	Tier 4	All-Electric			
Unregulated -Tier 2	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ switcher	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ line haul	No	No	No	Yes	Yes**	Yes
Tier 3 – Tier 4	No	No	No	No	No	No
*Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2019.						
**Automatic Engine Start-Stop technologies are only eligible to be installed on locomotives currently certified to Tier 0 or unregulated.						

Table 3c Locomotive Engine Project Eligibility

Current Locomotive Tier	Engine & Locomotive Replacement				Verified Retrofit	Idle-Reduction[2] Technology	Certified Remanufacture System[4]
	Tier 0–2+	Tier 3	Tier 4	ZeroEmission[1]			
Unregulated- Tier 2+	No	Yes[3]	Yes	Yes	Yes	Yes	Yes
Tier 3	No	No	Yes	Yes	Yes	Yes	Yes
Tier 4	No	No	No	No	No	Yes	No

[1]Fuel cell engine and locomotive replacements are not eligible.
[2]Automatic engine start-stop technologies are only eligible to be installed on locomotives currently certified to Tier 0 or unregulated, subject to the restriction on mandated measures.
[3]Tier 3 engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section VIII.D.1 below. Tier 3 is not eligible for locomotive replacement.
[4]Some locomotive engine projects may be subject to the restriction on mandated measures.

Note: Tier 0+, Tier 1+, and Tier 2+, Tier 3, and Tier 4 represent locomotives manufactured or remanufactured under the more stringent Tier standards promulgated under the 2008 (current) locomotive and marine rule. Tier 0, Tier 1, and Tier 2 represent locomotives originally manufactured or remanufactured under the less stringent Tier standards promulgated in 1997.

17. **Locomotive Shore Connection:** No funds awarded under the NMED CDP shall be used for locomotive shore connection system projects that are expected to be utilized less than 1,000 hours/year.

MANDATORY COST-SHARE REQUIREMENTS

Projects involving engine upgrades, certain idle reduction technologies, shore connection systems, electrified parking space technologies, certified engine replacements, or certified vehicle/equipment replacements, as defined in the Project Types section, are subject to the DERA Funding Limits and mandatory cost-share requirements shown below in Table 4.

The "DERA Funding Limits" (percentages) shown below represent the maximum portion of the equipment costs (parts and labor including sales tax) that can be covered with a combination of DERA funds and any non-federal voluntary matching funds provided by the State. The portion of the costs that exceed the DERA Funding Limit is referred to as the "mandatory cost-share." Meeting the mandatory cost- share is ultimately the responsibility of the grantee; however, the mandatory cost-share is typically provided by the applicant.

Note: DERA funds may not be used to meet mandatory cost-sharing requirements for projects funded with environmental mitigation funds. Further, environmental mitigation funds (e.g. VW Environmental Mitigation Trust Funds via the DERA Option) may not be used to meet non-federal mandatory cost-share requirements of any DERA grant.

Eligible Technologies	DERA Funding Limits (DERA Funds + Voluntary Match including VW Trust)	Minimum Mandatory Cost-Share (Fleet Owner Contribution)
Drayage Truck Replacement	50%	50%
Vehicle or Equipment Replacement with EPA Certified Engine	25%	75%
Vehicle or Equipment Replacement with CARB Certified Low NOx Engine	35%	65%
Vehicle or Equipment Replacement with Zero-tailpipe Emission Power Source	45%	55%
Engine Replacement with EPA Certified Engine	40%	60%
Engine Replacement with CARB Certified Low NOx Engine	50%	50%
Engine Replacement with Zero-tailpipe Emission Power Source	60%	40%
EPA Certified Remanufacture Systems	100%	0%
EPA Verified Highway Idle Reduction Technologies when combined with new or previously installed exhaust after-treatment retrofit	100%	0%
EPA Verified Highway Idle Reduction Technologies without new exhaust after-treatment retrofit	25%	75%
EPA Verified Locomotive Idle Reduction Technologies	40%	60%
EPA Verified Marine Shore Connection Systems	25%	75%
EPA Verified Electrified Parking Space Technologies	30%	70%
EPA Verified Exhaust After-treatment Retrofits	100%	0%
EPA Verified Engine Upgrade Retrofits	100%	0%
EPA Verified Hybrid Retrofit Systems	60%	40%
EPA Verified Fuel and Additive Retrofits when combined with new retrofit, upgrade, or replacement	Cost differential between conventional diesel fuel	Cost of conventional diesel fuel
EPA Verified Aerodynamics and Low Rolling Resistance Tires when combined with new exhaust after-treatment retrofit	100%	0%
Alternative Fuel Conversion	40%	60%

WAIVER OF PROGRAMMATIC REQUIREMENTS

NMED will consider, on a case-by-case basis, and submit to EPA for approval, waiver requests from programmatic requirements. Waivers will only be approved for non-statutory or non-regulatory requirements. The applicant must provide sufficient justification for the waiver. The State must obtain EPA approval for any waiver request before commencing any work or the expenditure of funds on a project involving a waiver request. Any questions regarding waivers should be directed to the NMED Project Officer.